

a Data come from every member of a population. Is this a sample or a census? <i>a census</i> a census or a sample	b In a random sample, what chance of being picked does each member have? <i>an equal chance</i> what random means	c A sample is taken from one group of the population only. Is it random or biased? <i>biased</i> a biased sample	d A sample of 50 is taken from 1000. What fraction of the population is sampled? <i>$\frac{1}{20}$</i> the sample as a fraction
e In a sample of 40, 12 say yes. What fraction of the sample say yes? <i>$\frac{12}{40} = \frac{3}{10}$</i> a proportion from a sample	f 12 of a sample of 40 say yes. Estimate how many of 400 say yes. <i>120</i> scaling up to the population	g 12 of a sample of 40 say yes. Estimate how many of 300 say yes. <i>90</i> a scale factor that is not whole	h 12 of a sample of 40 say yes. Estimate how many of 400 say no. <i>280</i> estimating the other group
i 6 of a sample of 20 say yes, and 33 of 100. Which gives the more reliable estimate? <i>33 of 100</i> a bigger sample is more reliable	j 6 of a sample of 20 say yes, then 34 of 80. What fraction say yes overall? <i>$\frac{40}{100} = \frac{2}{5}$</i> combining two samples	k One eighth of a sample is red, and 75 in all are red. Population estimate? <i>600</i> the population from a known count	l Mark 20. Later, 5 of 30 caught are marked. Population estimate? <i>120</i> capture recapture

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